439 also gather large quantities of salsaparilla, india-rubber and Tonka beans, in the forests. The traders on their arrival at the Campinas (the scantily-wooded region inhabited by the main body of Mundurucús beyond the cataracts) have first to distribute their wares--cheap cotton cloths, iron hatchets, cutlery, small wares, and cashaça--amongst the minor chiefs, and then wait three or four months for repayment in produce". [1863, pp. 243-244]

439 When rubber became the major product of Amazonia the same pattern of trade
622 was perpetuated among the Mundurucu. All of the rubber collected was turned over
624 to the chief, who alone negotiated directly with the trader. The merchandise
given for the rubber was, insofar as could be ascertained through contemporary
[314] informants, equitably distributed to each man in proportion to the rubber he had produced. But since chiefs were commonly more prosperous than other men, it can be assumed that they did not suffer in their role of middleman. The share taken by the chief, however, was never so great as to result in truly significant wealth differences. In fact, the traders usually managed to keep the Indians in debt, and this debt was charged against the chief as the representative of the village. Tocantins, who visited the Mundurucú in 1875, published a bill presented to one chief [Tocantins, p. 154]. If this bill is typical, the Indians' indebtedness was frequently very heavy. These debts were used to force the chief to extract greater production from his followers.

As the Mundurucu depended increasingly upon trade, the chief became more subordinate economically to the trader, who manipulated him accordingly. The trader eventually was able to appoint "chiefs" to carry on the trade. An appointed chief was usually known as the capitao, or "captain", as distinguished from the hereditary village chief, who was called anyococucat or ichöngöp. By using the "captains" as local trade representatives, the traders were able to increase their control over the villages. At the same time, by robbing the hereditary chiefs of their trade function, they weakened the entire structure of leadership. In time, the capitao displaced the hereditary chief almost entirely. To increase the prestige of the trader-appointed chief, the trader often took his protegé on his annual trip to buy supplies in Belém, where the chief's position was confirmed by the governor or some other official.

The Mundurucú dependency upon trade at first evidently increased the peacetime authority of the hereditary chief, for the villagers relied upon him to promote and secure their best interests in trading activities. The appointment of capitoes undermined the native chief, and initially increased the trader's control over the village. The people became confused, however, as to whether
[578] the capitao or the anyococucat should be regarded as "chief". Ill feeling towards and suspicion of the appointed chiefs began to develop, for the Indians were always aware of, although powerless to cope with, the sharp practices of the traders, and they usually assigned the capitao a share of the blame. Upon the latter fell the onerous task of goading the people to harder work in the rubber avenues. Since most Mundurucu do not even today consider rubber collecting a congenial occupation, the role of the capitao must have done little to increase his popularity. During the field research among the Mundurucú, the young, bilingual trader-appointed "chief" of the village of Cabitutú was in danger of losing his life. Distrust of the trader, whom the "chief" represented, was centered upon this young man and threatened his position so greatly that he was on the verge of flight.

In later years, as will be described subsequently, individual Mundurucú Indians have tended increasingly to deal with the trader directly rather than through the "chief". For this reason, village political organization has been effectively shattered.

439 The white-appointed Mundurucú "chief", unlike his Northeastern Algonkian
624 counterpart, mediated trade relations between a group of followers and the
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whites. After individual trading had become strongly established among one section of the Mundurucú, however, "chiefs" were chosen by the Indian Agent and by missionaries in order to control the general behavior of the Indians, and not specifically for commercial purposes. This more nearly approximates the modern Montagnais situation, although it was reached through a different sequence of functional roles and from a different aboriginal base. In both cases, the Indians themselves were very conscious that these men were not genuine chiefs in terms of aboriginal leadership patterns, and both groups apparently suspected that the white-recognized chief was promoting the interests of the white men rather than those of his own people. The new leadership patterns never became fully established. While these patterns were functional in terms of white-Indian relations, they were dysfunctional in terms of the native socio-cultural structure.

Among the Mundurucú, therefore, the integrity of the local socio-political groups was, in part, temporarily maintained by a change in the functional role of the chieftain. That the changed pattern of leadership eventually became dysfunctional resulted in part from the ecological adaptations necessary to rubber collection. These adaptations, however, did far more than contribute to the disintegration of political controls. They undercut the very economic basis of village life.

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Hevea brasiliensis, the native and most common specie of rubber tree, grows wild throughout the upper waters of the Amazon. It can be exploited only during the dry season, and, in the upper Tapajós River valley, the maximum length of the gathering season is from May to early December, approximately seven months. Since these trees are scattered throughout the low lands near the watercourses, they are reached by circuitous paths cut through the undergrowth. The spacing of the trees and the work involved in rubber collection generally limit the number of trees tapped daily by one man to one hundred and fifty or less. Some collectors improve their yield per tree by maintaining two or three separate avenues which they visit only every second or third day. The distribution of rubber trees is such that each avenue gives access to trees within an area of about three to five square miles. The actual size of this territory depends, of course, upon the density of the rubber trees. In some sections of the Amazon drainage wild rubber is more abundant than are others. One may travel ten to twenty miles on reaches of river where rubber is sparse without passing a single habitation, but, where rubber is more plentiful, one encounters houses at intervals of a mile or even a half-mile.

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The rubber tapper must work in his avenue or avenues almost daily, and therefore must live near them. Since each tapper exploits a considerable tract of land, his physical remoteness from neighboring tappers is a matter of necessity. Thus, on the Tapajós River, which has a population of about 3,000 excluding the Mundurucú, there are only two Brazilian villages of any consequence. One of these has a population of about 700, and the other has only 150 people. The other settlements are merely hamlets consisting of a trading post and from two to seven houses. The majority of the population live in isolated houses on the river banks.

The exploitation of wild rubber is a solitary, individual occupation in that the tapping of the tree, the subsequent collection of the latex, and the final coagulation process are one-man jobs. The last phase, carried out at the end of the day, consists of solidifying the latex over a smoky fire. The simplicity and the daily time-schedule of the entire rubber process in Amazonia is such that no one can profitably leave off collection to specialize only in tapping or collection or coagulation. For similar reasons, two men do not work in the same avenue. However companionable, it would not be a practicable means of increasing production.

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This brief account of how wild rubber is exploited is necessary to an understanding of changes in Mundurucú society. In the earlier contact period, the

439 Mundurucú traded chiefly in manioc flour and wild products, and rubber was of secondary importance. Chandless' observation [1862, p. 277] that in 1860 the Mundurucu of the upper Tapajós "trade in salsa and sell provisions to the parties of India-rubber makers" indicates that important trade in articles other than rubber continued at least until 1860. Shortly after this date, however, the tempo of rubber extraction in the Amazon quickened, and in 1875, as Tocantins' account shows [1877, pp. 151-154], rubber was the most important Mundurucú product.

177 With the advent of the rubber trade, Mundurucú acculturation entered its
439 second stage. During the first, when trade in manioc flour and certain wild products predominated, the hereditary chief mediated between the traders and his people, aboriginal social patterns were largely unchanged, and warfare was still vigorously prosecuted, frequently under the sponsorship of traders and colonial authorities. During the second stage, which lasted until 1914, warfare abated, the size of villages decreased owing to migration and European-introduced diseases, and the position of the hereditary chief was weakened by the imposition of appointed "chiefs". The period was characterized by a "loosening" of integration rather than by a change in mode of integration, or structure.

221 Work in the rubber avenues in the latter half of the nineteenth century did
●314 not upset the annual subsistence cycle as much as might be expected. Whereas many people had formerly left their villages during the dry season to hunt and fish along the streams, they now left to collect rubber. As in times past, they cleared their garden sites before leaving and returned to the village in time to burn them over and plant. The necessity to provide all their own subsistence limited the rubber producing season to three months, mid-June to mid-September, [171] out of a possible seven. This parallels closely the earlier phases of Northeastern Algonkian fur production, when the Indian's need to obtain their own meat supply by aboriginal cooperative techniques limited fur production and conflicted with their increasing desire for Western manufactures [Leacock 1954, pp. 25-26].

439 During the nineteenth century (and to the present day) the Mundurucú, like
177 the Algonkians and in fact most aborigines, had been acquiring a seemingly insatiable appetite for the utilitarian wares and trinkets of civilization. Firearms increased their efficiency in warfare and hunting, especially the individu-
[224] al hunting carried on during the rubber season when one or two families lived in isolation adjacent to their rubber trees. In communal hunts, the game could be surrounded and the range and velocity of the weapons were not so crucial to success. Other items, too, became necessities to the Mundurucú. Contrary to popu-
lar belief that nudity is beneficial to tropical peoples, there are various reasons why clothing is desirable in the Amazon. Insect stings greatly annoy
[291] the Indians, and at night the temperature drops to from 55° to 65° F. Clothing, however, is expensive, and only in recent years has it been used consistently in some Mundurucu villages. The movement toward covering the body entailed the development within two generations of a sense of shame comparable to that of Europeans. The Mundurucú, especially the women, have also acquired a desire for finery for the sake of display. They have also developed a taste for many strictly non-utilitarian goods, such as the Brazilian raw cane rum and the beads and ornaments purveyed by the trader.

A full and adequate description of the growth of Mundurucú dependence upon trade would require a separate treatise, for reliance upon manufactured goods entailed further dependence upon many adjuncts of these goods. For example, fire-
[415 arms required powder and lead, while garments of factory-woven cloth had to be made and repaired with scissors, thread, and needles. The substitution of metal
323] pots for native ones of clay and of manufactured hammocks for the native product has reached the point where many young women now do not know how to make these articles. The Mundurucú barely remember that their forebears used stone axes and bamboo knives, and they would be helpless without the copper toasting pan used to make manioc flour.

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Despite the flourishing trade in gewgaws, the allure of most trade goods lay more in their sheer utility than in their exotic qualities. The increased efficiency of the Mundurucú economy made possible by steel tools must have been enormous.

The parallels in these basic processes of acculturation between the Mundurucú and the Montagnais are porbably to be found also among most aborigines. In the case of the Mundurucú, the displacement of aboriginal crafts by commercial goods better suited to meet local needs, both old and new, inexorably led to increased dependency of the people upon those who furnished these goods and therefore to a greater involvement in economic patterns external to their own culture.

The Mundurucú families, like those of the Algonkians, became dependents of the trading posts. More than a century ago, Bates related that Brazilian traders made seasonal expeditions to trade with the Mundurucú. After rubber became important in the Amazon, permanent trading posts were established on the upper Tapajós River. These posts, whether owned by individuals or companies, exercised such control over tracts of rubber-producing forest that they compelled the rubber collector to trade exclusively with them. They accomplished this by their power of dispossession and by holding the collector in debt. The traders among the Mundurucú were never able to obtain title of ownership to the rubber regions within Mundurucú country proper,[2] but they made the Indians dependent upon them in a very real sense through their credit arrangements. In time, all of the Mundurucú villages came under the control of various traders, who were so influential by virtue of being necessary to the Indians that they were able to appoint the "chief", in violation of Indian tradition, and thereby intensified their control over the Indians.

The progressive weakening of the hereditary chief, whose authority was based upon aboriginal activities, was furthered by the decline in warfare. The post-white warfare, although frequently mercenary in character and auxiliary to Portuguese occupation and expansion, continued the native pattern of authority. The Indians were paid in trade goods. When, at the end of the nineteenth century, the central Amazon region had been pacified, the military help of the Mundurucú was no longer needed. Meanwhile, rubber collecting had become the principal means by which the Indians acquired foreign trade articles. Since the Indians were important to rubber production in labor-starved Amazonia, they were pushed to greater efforts by the traders. Increased devotion of the Mundurucú to rubber production correspondingly interfered with their warfare; for in earlier times the rubber season was the time for war. When in 1914 a Franciscan mission was established in their midst, the earlier political and economic basis of Mundurucú warfare was so undermined that the admonitions of the priests that they live in peace were quite effective.

At the end of the second stage of Mundurucú acculturation, only bonds of kinship and economic collectivity in producing food for the group held Mundurucú society together. Much of the old structure was gone. The chieftaincy had been undermined, warfare had ended, and reliance upon the outside economy was taking effect. During the nineteenth century, increasing numbers of Mundurucú who had difficulties with their co-residents were able to leave their villages permanently. Many others left in order to participate more fully in the rubber economy.

Full dependency upon rubber collection is not compatible with village life. Since the aboriginal Mundurucú villages were located several days foot travel from the rubber areas fringing the rivers, a family participating both in collective village life and the rubber economy had to migrate seasonally between its village and its house in the rubber area. Families living in this manner could spend only three to four months in rubber production. The only way the Indians can devote their full efforts to rubber tapping is to leave the villages of the interior savannah and live permanently near the rubber trees along the river banks. A large

portion of the Mundurucú, whose increased need of and desire for trade goods could no longer be satisfied by the yield of only three months' work in the rubber avenues, have made this choice.

These families represent the third stage of Mundurucú acculturation. Their resettlement in the rubber regions, however, has occurred in two ways. The first is a direct and complete adaptation to rubber collection, which can be studied in many contemporary inland villages. People desiring to increase their income from barter improve their rubber avenue house to make it more comfortable during the rains, plant gardens, and remain there. Although they maintain relationships with the inland villages, the loci of their social lives lie increasingly within the orbit of the communities of scattered families dependent upon the trading posts. The final step in their incorporation into the local Brazilian economy and the culmination of this acculturative process will come when they abandon horticulture to devote full time to work in the rubber avenues, and, like their Brazilian neighbors and the Western Montagnais, depend upon trade for the bulk of their food supply.

The second mode of readaptation to the rubber economy, while ending in the same type of settlement pattern and social organization as the first, involves passage through an intermediate stage. The previously mentioned mission on the Cururu River had indifferent success in attracting the Mundurucú until the 1920s, when a policy of trading with the Indians was adopted. The missionaries were honest and generous in their commercial relations, and rubber-tapping became more profitable to the Indians. Their intensified collecting activities resulted in a general movement to the banks of the Cururú River, and by the 1930s many interior villages had been abandoned.

The migrants settled so heavily on the river banks that they were able to nucleate in new villages. These villages, however, lacked the men's organization, division of labor, and collective patterns which structured the old type villages. Although the population shift from the old to new villages was heavy, it involved individual families rather than whole villages. The new villages grew as additional nuclear families arrived from the savannah communities. During this period of growth, since the new villages consisted of families, many of which had not previously been connected with one another, each family had to carry on the subsistence activities which were formerly the function of the extended family and village. Gardens were cleared and planted by husband and wife with whatever aid their children were capable of giving. Fish, taken by family members from the nearby rivers, rapidly replaced game formerly taken in collective hunts as the major source of protein. Meanwhile, increased rubber production enabled the Indians to buy the hooks, lines, and canoes with which fishing was made more effective. As the new villages grew larger, the atomistic division of labor was perpetuated, and the nuclear family became the basic unit of production.

Political authority on the Cururú River was almost nonexistent. The migrants began to trade as individuals, first with the missionaries and later with the newly established Indian Post. This economic trend stripped the "chiefs" of one of their last remaining functions, and their role was reduced to that of intermediary between the villagers and the priests and Indian agent.

The amorphously structured villages which arose on the banks of the Cururú River represent a transition to the family level and are not the culmination of adaptation to the ecology of rubber collection. Most of the residents of the Cururú River still have to reside away from their villages during the rubber season, but the easy communication made possible by canoe transportation allows the majority to return to rubber production after planting their gardens.

The new individualism and fragmented division of labor, combined with facets of the old culture which had become dysfunctional in the new situation, contributed

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Sundays when the people come to trade and to enjoy social contacts. The patron is also expected to intervene in cases of serious violation of the law, and he is frequently called upon to settle disputes among his clients. The latter depend heavily on the traditional mutual obligations between patron and client. If the rubber collector falls ill and cannot work, the patron is expected to continue to extend credit to him so that his family may subsist. The patron is also supposed to offer food and coffee when his client visits and to show generosity to the latter's children, even if he is not their godfather. In turn, the client is expected to produce as much rubber as possible and to be loyal to his patron. But it is, at best, a very loosely knit community, for membership shifts frequently and the daily life of the people is carried on in one- or two-family isolation. The most important factor holding the community together is trade with the same patron.

This paucity of social interaction and the loose cohesion of the community is generally caused by the extraction economy prevailing in Amazonia and especially by the collection of wild rubber. The wild rubber trees exploited in the Amazon are scattered along the streams and are usually found on land flooded during the rainy season. Access to the trees is along paths that wind through the forest from one tree to another. The average rubber gatherer has one to three such "avenues" that he visits in rotation every third day to make a fresh cut in the bark of the tree and, later in the same day, to collect the latex that has accumulated in a metal cup placed below the incision. The trees are so widely distributed, except in the richest areas, that he usually works from dawn to late afternoon just to tap one avenue. The great area necessarily exploited by each rubber tapper, plus the fact that large riverine areas are found with few rubber trees and are thus unoccupied,

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314 361 [489] makes a dispersed settlement pattern necessary. Transportation in the region is only by canoe, and this, combined with the long work day, necessitates the placement of the house near the rubber avenue. The result is an average distance between houses of one mile, longer intervening stretches occurring in districts poor in rubber and thus submarginal in today's market.

314 The rubber tapper's work is not finished when he returns to his house, for he still must smoke and thereby cure and congeal the liquid latex. This process usually occupies about three hours, but if his yield is great, it can take up 511 to five hours. Since his poverty is such that he can afford to buy only certain staple foodstuffs, he is often forced to [226] fish until late in the night after he has smoked his rubber. [224] The small amount of game eaten is usually killed by him during his rounds of the rubber trees. The only other important subsistence activity, slash-and-burn agriculture, is 241 511 not often practiced by the rubber cutter because good land within a feasible distance of his house is rare, because the patron, to whom he usually is indebted requires extra services in addition to a maximum production of rubber, and because he is resigned in apathy to his hopeless situation. Under these circumstances of great distance from his 621 511 neighbors and preoccupation with a barter economy requiring complete individualization of production, the bonds of economic coöperation and interdependency are weak within the local community. The caboclo has no recourse because he is usually held in debt servitude to the [426] trader, and because the region, in its present state of economic development, offers few alternatives. This, then, is the milieu into which the remaining Mundurucú are being progressively drawn and into which many of their forebears have already been assimilated.

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1869, 100; 1895, 50.[18] The remaining fifty had already lost their identity as Mundurucú or as Indians. Hartt likewise reported in 1885 that "the Mundurúcú of the Tapajós, below the rapids, are now all civilized and so mixed with the general population that their nationality has in great part been lost."[19]

On the Madeira waters, much the same process ran its course. In 1865, Louis Agassiz, the naturalist, and his wife traveled on the Paraná-Mirím and the lower part of the Maué-Assú River. On the latter stream they found a Mundurucú village consisting of two parallel rows of houses

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with a Catholic church at one end of an open square.[20] At the time of their visit the population was scattered in the forest where they were working in their gardens and collecting forest products. The full population gathered only three or four times a year for festivals. Only a few Indians

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spoke Portuguese, according to Mrs. Agassiz,[21] although there were undoubtedly more bilinguals who preferred not to disclose the fact. Most of the people lacked the characteristic Mundurucú tattooing, and all wore clothes. William Chandless, an English explorer who visited the region only a few years later, reported that the Mundurucú "are civilized, and live in families not as in tribal life."[22]

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They were primarily engaged in the planting of tobacco and the collection of *guaraná*, sarsaparilla, and *copaiba* oil. The movement of people from the savannahs of the Tapajós to the upper Secundurý River was apparently still continuing, for in 1870 Chandless reported "The Indians of the Rio de Canumá, as far as I went, are much like those on the Maué-assú: higher up the tattooed sons

[18] Coudreau, 1897, p. 8.
[19] Hartt, 1885, p. 117.
[20] Agassiz, 1869, p. 308.
[21] *Ibid.*, p. 312.
[22] Chandless, 1870, p. 424.

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upper Tapajós began to supplement their sporadic income as warriors with the proceeds of trade. The early commerce with these Indians was carried on entirely by the itinerant traders, *regatões*—as late as 1852, there were no permanent Brazilian settlements south of Itaituba.[26] The region was still only occasionally penetrated by Brazilians, and trade was too small to warrant permanent commercial posts. The regatões served the purpose, traveling throughout the region in canoes of from five to ten tons capacity, selling the merchandise that they carried aboard, and receiving garden and forest products in return. Bates described this early trade as follows:

> They [the Mundurucú of the upper Tapajós] make large plantations of mandioca and sell the surplus produce, which amounts on the Tapajós to from 3000 to 5000 baskets (60 lb. each) annually to traders who ascend the river from Santarem between the months of August and January. They also gather large quantities of sarsaparilla, india-rubber, and Tonka beans, in the forests. The traders, on their arrival at the Campinas (the scantily wooded region inhabited by the main body of Mundurucús beyond the cataracts) have first to distribute their wares—cheap cotton clothes, iron hatchets, cutlery, small wares, and cashaca—amongst the minor chiefs and then wait three or four months for repayment in produce.[27]

As Bates noted, the trade was not conducted between individuals but between the trader and the village chiefs. The regatão gave merchandise to the chief and told him what he wanted in exchange; it was the chief's duty to exhort his people to production and, also, to distribute the trade goods among them. The people themselves had little or no contact with the traders, and only the chief had an account. It seems almost unnecessary to say that the exploitation of the illiterate Indians was extreme and that

[26] Bates, 1863, p. 233.
[27] *Ibid.*, pp. 243–244.

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182 regular intervillage festivals, and this has contributed to
628 the weakening of the bonds of descent. Villages pursue a
796 far more isolated existence than they did in former times, and extravillage ties no longer bind the individual so closely to life in the savannahs. Within the villages, the disruptions caused by sorcery and leadership combine with increasing participation in trade relations to disturb the equilibrium of community life.

THE STRUCTURE OF MUNDURUCÚ-BRAZILIAN RELATIONS

314 The economic and social adjustments made by the Mun-
439 durucú to the collection and trade of wild rubber can be
648 described by using the residents of Cabruá as illustration. The trade relations of the villagers have been briefly mentioned in the discussion of chieftainship, and it has been pointed out that the villagers disperse annually to tap rubber on both the Tropas and Cabitutú rivers. Those who collect on the latter stream generally deal with the trader in the hamlet of Sae Cinza, but occasionally make transactions with itinerant peddlers. The chief of Cabruá maintains his rubber-season dwelling on the Cabitutú at a place known as Cachoeirinha. With him live two other men, one of whom is his son-in-law, and two adolescent boys of his family, who also have rubber avenues. One of his sons and another man maintain a separate residence not far from that of the chief, and a stepson taps rubber near the mouth of the Cabitutú. The chief is considered the representative in trade of all but one of the dry-season residents of the Cabitutú, and these "clients" gather at his house when the trader is expected.

Several residents of Cabruá collect rubber on the Tropas River. Most are customers of a trader at Caroçal on the Tapajós River, who maintains a branch store and agent on

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the Tropas, but some do business with the trader of São Martinho, on the Tapajós. The people of Cabruá live in three separate hamlets on the Tropas. At one, the most powerful shaman of the village lives with two younger men of his household, and another is occupied by another man of the same house and his son-in-law. These two men trade on behalf of their rubber-avenue co-residents, and the chief of Cabruá is not considered to be their representative in trade. The Cabitutú River has only one or two all-year residents, and these are Brazilian. A number of families of Brazilians and eight Mundurucú families maintain regular homes on the Tropas, however. The latter Mundurucú associate to a varying extent with the villagers during the rubber season and occasionally come to Cabruá to seek the services of a shaman or simply to visit, but they remain marginal to village life.

The Mundurucú of the savannah communities collect less rubber than those of the Cururú and far less than the the Brazilian tappers. The latter generally commence production as soon as the flood recedes in May or early June and collect until the rains and rising waters make their rubber avenues inaccessible in November or December. The efforts of the campineiros, however, are limited by their alternating residence between village and rubber-avenue dwelling. The residents of Cabruá have to clear land for gardens before they may depart, and this generally holds them until May. But only the more industrious Mundurucú leave at this time; many linger in the village until June or July, and in 1952 one man stayed until August. Rubber is collected until August, at which time the trees lose their leaves, and the yield drops off sharply for two to three weeks. Some Indians use this occasion to return to the village to burn the felled vegetation in their garden sites and then return to the rubber avenue until

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221 314 241 planting time a few weeks later; most, however, stay in the village. The average collecting season of the savannah Mundurucú thus lasts about two and a half to three months out of a possible period of six months.

342 The dwellings in which the collecting season is passed frequently consist only of a roof set on four or six upright posts, but others are larger and have walls of mud or palm [343] leaves. Cooking is generally done in a shed connected to the rear of the house, in imitation of the typical north Brazilian kitchen. The rubber-avenue dwellings often [592] house but one nuclear family, but if a larger group resides in the same house, all members of the nuclear family hang their hammocks adjacent to one another.

361 592 There is no firm rule dictating the composition of the membership of rubber-avenue dwellings. Residents of the same household tend to cling together during the dry season, but the limited number of rubber avenues accessible from one dwelling break up the larger extended families. In such cases, closer kinsmen within a household remain together. The availability of rubber avenues, in general, makes any strict rule of dry-season residence impracticable. They are limited in number, and a young man embarking on independent rubber collection must reside where an avenue is vacant.

314 461 512 The average Brazilian collector spends five or six days a week in his rubber avenue, but the campineiro rarely works more than four. And while a single Brazilian may have up to three separate avenues, working each on different days, no campineiro has more than one. Indisposition to intensive labor in rubber production thus combines with the maintenance of savannah-village residence to keep Mundurucú productivity low. The Indian collector leaves the house for his avenue early in the morning and generally returns by mid-afternoon. Besides his knife for

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cutting the bark and the metal cups in which he collects the rubber, he always carries his arms, hopeful for stray game. He wends his way through the forest, making an incision in the bark and setting a cup below it on the outward journey and collecting the latex on the way home. He frequently stops to collect fruit, shoot a monkey, or bathe. After returning home he cures the latex in a small shed built for that purpose. He then goes to the adjacent river and bathes; if it is not too late he may fish with a bow and arrow from the bank. On days when he does not visit his rubber avenue, the Mundurucú hunts or fishes. He is joined by the other men of the house if there are any; otherwise his pursuit is solitary, and the favored collective-hunting techniques cannot be employed. This and the general lack of firearms, which if he had them would make lone hunting more productive, result in a marked decrease in hunting during the dry season. Fish may be taken by individuals, and the kill of a few hours is generally ample for the needs of a nuclear family. On the other hand, a solitary hunter may pass two or three days without killing more than birds or a small monkey.

Large dry-season households commonly make gardens near their rubber avenues, but single family units rarely do so because they do not have enough workers to clear forest land. The advantages of rubber-avenue gardens outweigh the labor and inconvenience of clearing and planting them. The resident families have a local supply of farinha, which would otherwise have to be made in the village and transported to the rubber avenue, a difficult chore without canoes. Also, the land in the savannah country is inferior in quality to that near the larger rivers. Almost every rubber-avenue garden is in black soil, and this favored land is extremely scarce in the vicinity of Caburá. These gardens are therefore frequently drawn upon to sup-

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ply vegetables that are not available in the village. Despite these apparent benefits, the complete harvest is sometimes not brought in, and part of the produce either rots or is eaten by animals while the owners are in residence in the village during the rains.

The division of labor during the dry season is the result of the size of the co-resident group. If the unit is small, the men and boys often help the women in the manufacture of farinha, but if there are sufficient females to help in the task, the men do not join them. Correspondingly, a man is sometimes aided in rubber collecting by his wife or younger sons. Fishing and hunting, also, is generally done jointly by only two or three men. Larger-scale timbé-fishing expeditions are infrequent because the people are so widely dispersed. The work of rubber collecting is, except for the occasional help of a wife or son, essentially individual. Even where a number of rubber tappers and their families share the same residence, each man has his own avenue and unites with the others only when the day's work is done.

Rubber extraction fractionates villages and households during approximately one-quarter of the year, and the changed mode of residence and patterns of cooperation result in a greatly increased importance of the nuclear family. One Munduruc\u00fa owned a canoe on the Tropas River and another on the Cabitut\u00fa; the only other mode of transportation and communication is by trails that parallel the rivers. But the distances between homes make visiting infrequent during the rubber season, and the residence groups pass most of the period in isolation.

The breakdown of larger social units is paralleled in the economic realm by the individuality of rubber production and private holding of rubber avenues. The latter are private property in a limited sense only. What is "owned" is